Journal of Accountancy

Volume 49 | Issue 6 Article 6

6-1930

Students' Department

H. P. Baumann

Students' Department

H. P. BAUMANN, *Editor*

CONSOLIDATED BALANCE-SHEET

Problem:

Following are balance-sheets at December 31, 1928, of A Company, its subsidiary, B Company, and its affiliated sales proprietorship:

Assets	A Company	B Company	CD (a Proprietorship)
Cash in banks and on hand	$ 2,115.43	$ 12,944.18	$ 3,865.85
Receivables—customers (net)	38,966.78		301,454.00
Intercompany current accounts	431,452.87	34.10	934.05
Intercompany stockholdings	39,000.00		10,000.00
Intercompany bondholdings	102,500.00		2,000.00
Inventories at cost	168,475.75	113,767.81	74,728.35
Unamortized bond discount		5,250.00	
Land, buildings, machinery, etc., at depreciated cost	126,343.16	443,941.67	385.00
Total assets	$908,853.99	$575,937.76	$393,367.25
Liabilities			
Banks loans—First National Bank	$ 50,000.00	$ 10,000.00	$ 35,000.00
Accounts payable, including accruals	2,444.25	42,127.72	3,309.14
Cash advanced by officer, H. Blanding			530.00
Intercompany current accounts	40,968.15	1,452.87	390,000.00
First mortgage bonds		200,000.00	
Proprietor's investment			10,000.00
Capital stock, par $100.00	300,000.00	50,000.00	
Sinking-fund reserve		120,000.00	
Earned surplus, December 31, 1920	325,901.20	84,374.67	
Net profit 1921–1927	247,865.90	152,732.84*	*37,657.77*
Cash dividends 1921–1927	*200,000.00*	*100,000.00*	No withdrawal
Net profit, 1928	141,674.49	15,249.66*	*7,814.12*
Total liabilities and net worth	$908,853.99	$575,937.76	$393,367.25

Homer Blanding, president of A Company, owns 65% of its stock, and his wife, 5%; the remainder is held by employees or former employees. The company was established in 1902, Mr. Blanding having paid in at that time $10,000 cash in exchange for all the issued stock of the company. Prior to 1921, a series of stock dividends, but no cash dividends were paid to him, part of them having been distributed by him as gifts to his wife and certain employees.

A controlling interest (52%) in B Company was purchased by A Company on December 31, 1920, the stock having been acquired from B Company stockholders at an average cost of $150 per share. A 10% interest in B Company was purchased at the same time by Mr. Blanding at $160 per share. The proprietorship CD purchased a further 5% interest from minority stockholders on December 31, 1927, at $400 per share. The balance of the stock (33%) is owned by persons outside the business. B Company was established in 1918 with an authorized capital stock of $50,000 which was immediately sold for cash at par. Dividends of B Company were declared out of profits earned

* Less current provisions for sinking-fund reserve.

since December 31, 1920, with the exception of a cash dividend of 24% which was declared and paid January 2, 1921. No dividends prior to 1921 had been paid.

CD, the proprietorship, acts as selling agent for certain products of A Company. It was established in 1925 by Mr. Blanding who invested $10,000 therein. Mr. Blanding is still the proprietor. During 1928 only, goods were purchased by CD from A Company at cost to A Company plus 20%; at December 31, 1928, CD's inventory included merchandise so valued amounting to $41,958.12.

B Company's bonds are 6% first mortgage bonds, dated July 1, 1916, and due July 1, 1936. They were issued originally at 93. The mortgage covers the entire fixed assets of the company. Half the issue was purchased on the market at 102½ by A Company on December 30, 1920, the day before it acquired a controlling interest in the stock. A purchase at part of $2,000 B Company bonds by CD was made on December 31, 1928; on the same date, Mr. Blanding also acquired eleven $1,000 bonds at par. The trust deed requires that a sinking-fund reserve be maintained whereby $10,000 is credited thereto out of profits on December 31st of each year, commencing December 31, 1917. This provision has always been complied with.

The First National Bank has required Mr. Blanding's guaranty on loans to the three enterprises, and now asks for a consolidated balance-sheet which will show the net equity of Mr. Blanding and his wife. You are required by your principal to prepare (a) a consolidated work sheet, using for the purpose the accompanying forms which he has drawn up, and (b) a consolidated balance-sheet on which the net worth will be divided as between the minority interests and the majority interest, the latter consisting of Mr. Blanding and his wife. Your principal gives you the following specific instructions:

(1) Number the adjustments and eliminations and show under "explanations" the detail of how each was determined.
(2) Combine the sinking-fund reserve with earned surplus, and make a proper notation thereof in the consolidated balance-sheet.
(3) Credit minority stockholders with their proper interest in the earned surplus of the two companies, including, in the case of the minority stockholders of A Company, their proportion of the earned surplus of B Company.
(4) Do not charge or credit minority stockholders with any portion of the intercompany eliminations which are occasioned by the holdings of the Blandings.
(5) On the consolidated balance-sheet, for both minority and majority interests, set forth the original cash investment, and, among other things, show the balance of earned surplus at January 1, 1928, and the net profit for the year 1928.

Solution:

The foregoing problem was set by the board of examiners in accountancy, University of Illinois, in the November, 1929, examination. The suggested time for the solution of the problem was three hours.

From the requests for a solution and the comments which this department received, considerable interest attaches to this particular problem. The fact that a consolidated balance-sheet which will show the net equity of Mr. Blanding and his wife was required, and that the accounts of a proprietorship were being consolidated with the accounts of corporations, and that the problem involves major and minor holding companies, unrealized profit and intercompany inventories, and surplus arising through consolidation, seems to have raised many difficulties for many of the candidates.

The candidate was given working papers on which appeared the balance-sheets of A Company, B Company, the proprietorship CD, the investment of

A COMPANY AND RELATED ENTERPRISES

Consolidated work sheet—December 31, 1928

Assets	Balance-sheets A Company	Balance-sheets B Company	Balance-sheets "CD"	Investment of Mr. Blanding at cost	Adjustments and eliminations Dr.	Adjustments and eliminations Cr.	Consolidated balance-sheet
Cash on hand and in banks	$ 2,115.43	$ 12,944.18	$ 3,865.85	$	$	$	$ 18,925.46
Receivables—customers (net)	38,966.78		301,454.00				340,420.78
Intercompany current accounts	431,452.87	34.10	934.05	530.00		(A) 432,951.02	
Stockholdings by—							
A Company	39,000.00					(H) 32,760.00	
						(J) 6,240.00	
"CD"			10,000.00			(H) 10,000.00	
Mr. Blanding—							
A Company				10,000.00		(M) 10,000.00	
B Company				8,000.00		(H) 6,800.00	
						(J) 1,200.00	
"CD"				10,000.00		(M) 10,000.00	
Bondholdings by—							
A Company	102,500.00					(G) 2,500.00	100,000.00
"CD"			2,000.00				2,000.00
Mr. Blanding				11,000.00			11,000.00
Inventories, at cost	168,475.75	113,767.81	74,728.35				356,971.91
Reserve for intercompany profit inventories						(B) 4,895.11	*4,895.11*
Unamortized bond discount		5,250.00				(G) 2,625.00	
						(N) 341.25	2,283.75
Land, buildings, machinery, etc., (net)	126,343.16	443,941.67	385.00				570,669.83
Total assets	$908,853.99	$575,937.76	$393,367.25	$39,530.00	$	$520,312.38	$1,397,376.62

A COMPANY AND RELATED ENTERPRISES

Consolidated work sheet—December 31, 1928

Liabilities	Balance-sheets A Company	B Company	"CD"	Investment of Mr. Blanding at cost		Adjustments and eliminations Dr.		Cr.	Consolidated balance-sheet
Brought forward	$	$	$	$		$		$ 520,312.38	$
Bank loans—First National Bank	50,000.00	10,000.00	35,000.00						95,000.00
Accounts payable, including accruals	2,444.25	42,127.72	3,309.14						47,881.11
Due proprietor—H. Blanding			530.00		(A)	530.00			
Intercompany current accounts	40,968.15	1,452.87	390,000.00		(A)	432,421.02			
First mortgage bonds		200,000.00							200,000.00
Original investment by Mr. Blanding—									
A Company	10,000.00				(M)	10,000.00			
"CD"			10,000.00		(M)	10,000.00			
Capital stock—A Company (additional)	290,000.00				(K)	90,000.00			200,000.00
Capital stock—B Company		50,000.00			(D)	16,500.00			
					(H)	33,500.00			
Mr. Blanding's net worth				39,530.00					39,530.00
Sinking-fund reserve		120,000.00			(C)	120,000.00			
Surplus arising through consolidation					(G)	5,547.50	(H)	50,465.23	44,917.73
Earned surplus, 12-31-20—A Company	325,901.20				(K)	97,770.36			228,130.84
Earned surplus, 12-31-20—B Company		84,374.67			(E)	41,043.64	(C)	40,000.00	
					(H)	75,891.03			
					(J)	7,440.00			
Undistributed profits, 1921-1927—A Company	47,865.90				(K)	15,094.77	(G)	2,450.00	35,221.13
Undistributed profits, 1921-1927—B Company		52,732.84			(E)	40,501.84	(C)	70,000.00	
					(H)	6,136.65			
					(L)	21,018.32			55,076.03
Net loss, 1925-1927 "CD"			*37,657.77*						*37,657.77*
Net profits, 1928—A Company	141,674.49				(B)	4,895.11	(G)	350.00	
					(N)	341.25			
					(K)	42,504.97			94,283.16

Net profits, 1928—B Company		15,249.66			(F)	8,332.39	(C)	10,000.00	
					(L)	3,938.95			12,978.32
Net loss, 1928—CD			*7,814.12*						*7,814.12*
Minority interest—A Company—stock							(K)	90,000.00	90,000.00
Surplus from consolidation					(G)	2,377.50	(H)	15,502.45	13,124.95
Surplus, 1-1-28							(K)	112,865.13	
							(L)	21,018.32	133,883.45
Net profit, 1928							(K)	42,504.97	
							(L)	3,938.95	46,443.92
Minority interest—B Company—stock							(D)	16,500.00	16,500.00
Surplus 1-1-28							(E)	81,545.48	81,545.48
Net profit, 1928							(F)	8,332.39	8,332.39
Total liabilities and net worth	$908,853.99	$575,937.76	$393,367.25	$39,530.00		$1,085,785.30		$1,085,785.30	$1,397,376.62

Mr. Blanding at cost, and headings for adjustments and eliminations, consolidated balance-sheet, and explanations. A copy of these working papers was used in the preparation of the attached solution. The only additional account entered in the solution was the account for reserve for intercompany profit in inventories.

The explanations of the adjustments and eliminations are set up in journal-entry form in more detail than it is believed the examiners would require of the candidate.

(A)

Due proprietor—H. Blanding	$ 530.00	
Intercompany current accounts	432,421.02	
Intercompany current accounts		$432,951.02

To eliminate intercompany current accounts.

During the year 1928, A Company sold merchandise to CD at a price 120% of cost. Merchandise so valued and amounting to $41,958.12 was included in the inventory of CD at December 31, 1928. The amount of the intercompany profit in the inventory of CD is therefore $41,958.12—the cost to A Company ($41,958.12÷120%), or $6,993.02.

The minority interest in the selling company, (A Company), is entitled to its share of this profit which has been realized inasmuch as the sale was made to a company in which it held no interest. The remainder, 70%, should be set aside as unrealized, as Mr. Blanding and his wife did not realize a profit on the sale of the goods still in the inventory of CD, a company entirely owned by Mr. Blanding.

(B)

Net profits, 1928—A Company	$ 4,895.11	
Reserve for intercompany profit in inventories		$ 4,895.11

To set aside a reserve for the unrealized profit in the inventory of CD.

Sales price	$41,958.12
Cost to A Company $41,958.12÷120	34,965.10
Profit	$ 6,993.02
Less—minority interest 30%	2,097.91
Unrealized profit	$ 4,895.11

(C)

Sinking-fund reserve	$120,000.00	
Earned surplus, 12-31-20—B Company		$40,000.00
Undistributed profits, 1921-1927—B Company		70,000.00
Net profits, 1928—B Company		10,000.00

To reverse the annual charges for sinking-fund reserve of $10,000.00 per annum.

(D)

Capital stock—B Company	$ 16,500.00	
Minority interest—B Company—stock		$16,500.00

To set up the minority interest in the capital stock of B Company (see schedule, page 458).

(E)

Earned surplus, December 31, 1920	$ 41,043.64	
Undistributed profits, 1921–1927	40,501.84	
Minority interest—B Company—surplus Jan. 1, 1928		$81,545.48
To set up the minority interest in the surplus of B Company at Jan. 1, 1928 (see schedule).		
Net profits 1928—B Company	8,332.39	
Minority interest—B Company—net profit—1928		8,332.39
To set aside the minority interest in the net profit of B Company for the year 1928 (see schedule, page 458).		

A Company purchased one half of the issue of the bonds of B Company on December 30, 1920, for $102,500, the amount at which the bonds are carried in the balance-sheet of A Company at December 31, 1928.

As the bonds were carried on the books of B Company at December 31, 1920, at par less unamortized bond discount, it seems necessary to make an adjustment against the surplus arising through the consolidation for the excess of the cost of the bonds to A Company over the carrying value of the bonds. This excess is determined as follows:

Cost to A Company		$102,500.00
Carrying value—		
Par	$100,000.00	
Less: unamortized bond discount—December 31, 1920, to July 1, 1936 (15½ years at $350 per year)	5,425.00	94,575.00
Excess		$ 7,925.00

The reduction of surplus arising through consolidation should be distributed—

Majority interest	70%	$ 5,547.50
Minority interest	30%	2,377.50
Total	100%	$ 7,925.00

(G)

Surplus arising through consolidation	$ 5,547.50	
Minority interest—A Company		
Surplus from consolidation	2,377.50	
Bondholdings—A Company		$ 2,500.00
Unamortized bond discount		2,625.00
Undistributed profits, 1921–1927—A Company		2,450.00
Net profits, 1928—A Company		350.00
To adjust the unamortized bond-discount account.		

Statement Showing the Distribution of Interests in B Company

Schedule

Particulars	Amount	A Company	H. Blanding	"CD"	Total majority interest	Minority interest
Dates of purchase		Dec. 31, 1920	Dec. 31, 1920	Dec. 31, 1927		
Percent of holdings	100%	52%	10%	5%	67%	33%
Earned surplus Dec. 31, 1920	$ 84,374.67					
Proporton of sinking-fund reserve	40,000.00					
Total December 31, 1920	$124,374.67	$ 64,674.83	$12,437.47	$ 6,218.73	$ 83,331.03	$ 41,043.64
Undistributed profits, 1921–1927	$ 52,732.84					
Proportion of sinking-fund reserve	70,000.00					
Total	$122,732.84	63,821.07	12,273.28	6,136.65	82,231.00	40,501.84
Net profits—1928	$ 15,249.66					
Proportion of sinking-fund reserve	10,000.00					
Total	$ 25,249.66	13,129.82	2,524.97	1,262.49	16,917.28	8,332.38
Grand total of surplus, sinking-fund reserve, and profits	$272,357.17	$141,625.72	$27,235.72	$13,617.87	$182,479.31	$ 89,877.86
Capital stock	50,000.00	26,000.00	5,000.00	2,500.00	33,500.00	16,500.00
Total book value	$322,357.17	$167,625.72	$32,235.72	$16,117.87	$215,979.31	$106,377.86

The computation of the surplus arising through consolidation follows:

		A Company	H. Blanding	CD
Book value of stock of B Company at December 31, 1920:				
Capital stock	$ 50,000.00			
Proportion of sinking-fund reserve	40,000.00			
Surplus, December 31, 1920	84,374.67			
Total	$174,374.67			
Less: 24% cash dividend declared and paid on January 2, 1921	12,000.00			
Book value at date of purchase	$162,374.67			
Book value applicable to purchases of stock by—				
A Company—52%		$84,434.83		
H. Blanding—10%			$16,237.47	
Cost of investment in B Company				
A Company—260 shares at $150 per share	$ 39,000.00			
Less—24% cash dividend	6,240.00	32,760.00		
H. Blanding—50 shares at $160 per share	$ 8,000.00			
Less—24% cash dividend	1,200.00		6,800.00	
Book value of stock of B Company at December 31, 1927:				
Book value at December 31, 1920	$162,374.67			
Net profit, 1921–1927	152,732.84			
Proportion of sinking-fund reserve, 1921–1927	70,000.00			
Total	$385,107.51			
Less: dividends paid from profits since December 31, 1920	88,000.00			
Book value at December 31, 1927	$297,107.51			
Book value applicable to purchase of stock by CD (5%)				$14,855.38
Cost of investment—25 shares at $400 per share				10,000.00
Surplus arising from consolidation		$51,674.83	$ 9,437.47	$ 4,855.38

That portion of the surplus arising through consolidation of the accounts of B Company applicable to the purchase by A Company, $51,674.83, should be distributed between the majority and minority interests of A Company in accordance with their respective holdings, 70% and 30%, or $36,172.38 and $15,502.45, respectively. The surplus arising through consolidation applicable to the Blanding interests is therefore:

Majority interest in A Company	$36,172.38
H. Blanding	9,437.47
CD	4,855.38
Total	$50,465.23

(H)

Capital stock—B Company	$33,500.00	
Earned surplus, 12–31–20—B Company	75,891.03	
Undistributed profits, 1921–1927—B Company	6,136.65	
Stockholdings by—		
A Company		$32,760.00
CD		10,000.00
Mr. Blanding		6,800.00
Surplus arising through consolidation		50,465.23
Minority interest—A Company—surplus from consolidation		15,502.45

To eliminate the book value of the investment of the majority interests in B Company.

(J)

Earned surplus, 12–31–20—B Company	7,440.00	
Stockholdings by—		
A Company		6,240.00
Mr. Blanding		1,200.00

To record the return of investment to A Company and Mr. Blanding. A 24% cash dividend was declared (out of surplus at December 31, 1920) and paid January 2, 1921.

(K)

Capital stock—A Company (additional)	90,000.00	
Earned surplus, 12–31–20—A Company	97,770.36	
Undistributed profits, 1921–1927—A Company	15,094.77	
Net profits, 1928—A Company	42,504.97	
Minority interest—A Company		
Stock		90,000.00
Surplus, 1–1–28		112,865.13
Net profit, 1928		42,504.97

To set aside the minority interest of A Company as follows:

	Amount	30%
Capital stock	$300,000.00	$ 90,000.00
Earned surplus, 12–31–20	325,901.20	97,770.36
Profits, 1921–1927	50,315.90	15,094.77
Profits, 1928	141,683.24	42,504.97
	$817,900.34	$245,370.10

The amount to be credited to the minority stockholders of A Company for their proportion of the earned surplus of B Company is determined as follows:

	Undistributed profits, 1921–1927	Net profits, 1928	Total
Profits	$152,732.84	$15,249.66	$167,982.50

Sinking-fund reserve	$70,000.00	$10,000.00	$80,000.00
Total	$222,732.84	$25,249.66	$247,982.50
Less—dividends	88,000.00		88,000.00
Total	$134,732.84	$25,249.66	$159,982.50
A Company's portion (52%)	$ 70,061.08	$13,129.82	$ 83,190.90
Minority interest—30% thereof	$ 21,018.32	$ 3,938.95	$ 24,957.27

(L)

Undistributed profits, 1921–1927—B Company	$21,018.32	
Net profits, 1928—B Company	3,938.95	
Minority interest—A Company—		
Surplus January 1, 1928		$21,018.32
Net profit, 1928		3,938.95
To credit minority stockholders of A Company with their proportion of the earned surplus of B Company.		

(M)

Original investment by Mr. Blanding—		
A Company	$10,000.00	
CD	10,000.00	
Stockholders by Mr. Blanding—		
A Company		$10,000.00
CD		10,000.00
To eliminate intercompany accounts.		

(N)

Net profits, 1928—B Company	$341.25	
Unamortized bond discount		$341.25
To write down the unamortized bond discount on the $13,000.00 par of bonds held by Mr. Blanding and CD.		

An adjustment is necessary to reflect the amount of unamortized bond discount applicable to the bonds of B Company held by outsiders. The balance-sheet of the company shows such unamortized bond discount as $5,250 which is applicable to the total issue of $200,000. However, for consolidated purposes, this amount should be reduced as follows:

Authorized issue of bonds		$200,000.00
Held by:		
A Company	$100,000.00	
CD	2,000.00	
H. Blanding	11,000.00	113,000.00
In hands of outsiders		$87,000.00

The annual charge for amortization of the bond discount by B Company is

Par of bonds	$200,000.00
Amount received	186,000.00
Discount	$ 14,000.00
Life of bonds	20 years
Annual charge	$ 700.00

The bonds mature on July 1, 1936, or 7½ years hence. Therefore, the amount of the unamortized bond discount to be shown in the consolidated balance-sheet is

87/200 x $700.00 x 7½ years, or $2,283.75

A Company and Related Enterprises

Consolidated balance-sheet—December 31, 1928

(Showing net equity of Mr. and Mrs. H. Blanding)

Assets

Current assets:			
Cash on hand and in banks		$ 18,925.46	
Receivables—customers (net)		340,420.78	
Inventories, at cost	$356,971.91		
Less: reserve for intercompany profit	4,895.11	352,076.80	$711,423.04
Unamortized bond discount			2,283.75
Land, buildings, machinery, etc. (net)			570,669.83
			$1,284,376.62

Liabilities and Net Worth

Current liabilities:		
Bank loans—First National Bank	$ 95,000.00	
Accounts payable, including accruals	47,881.11	$142,881.11
First mortgage bonds (B Company)	$200,000.00	
Less: held by Mr. Blanding, A Company and CD	113,000.00	87,000.00

Minority interest:	A Company	B Company	Total	
Capital stock—				
Paid in cash		$ 16,500.00	$ 16,500.00	
Stock dividend	$ 90,000.00		90,000.00	
Surplus from consolidation	13,124.95		13,124.95	
Surplus January 1, 1928	133,883.45	81,545.48	215,428.93	
Net profit 1928	46,443.92	8,332.39	54,776.31	
	$283,452.32	$106,377.87	$389,830.19	389,830.19

Net worth:		
Original cash investment	$ 39,530.00	
Stock dividends— A Company	200,000.00	
Surplus arising through consolidation	44,917.73	
Surplus January 1, 1928	280,770.23	
Net profit—1928	99,447.36	$664,665.32
		$1,284,376.62

A sinking-fund reserve of $120,000 has been provided out of the profits of B company in accordance with the trust deed. This reserve has been combined with the earned surplus and net profit—1928—and included therewith in the above balance-sheet under minority interest and net worth.